Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 C.F.R. § 1.116

REMARKS

Claims 1 and 3, 4, and 6 to 15 are pending and rejected. More specifically,

- Claims 1, 3, 4, and 6 to 15 are newly rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing new matter;
- Claims 14 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite;
- Claims 1, 14, and 15 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by EP-A1-1,152,362 ("Maeda");
- Claims 1, 3, 4, 7 to 10, 14, and 15 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by EP-A2-1,288,868 ("Kawai");
- Claim 6 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kawai in view of US-A-5,619,630 ("Minami");
- Claims 11 and 12 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over
 Kawai in view of JP 2003-006245 ("Aragaki"); and
- Claim 13 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kawai in view of "Automatic Arrangement of Meta-Objects in Assembly Illustrations" ("Katsuma").

Applicants are herein amending claims 1, 3, 14, and 15. Applicants request reconsideration in light of the amendments and following remarks.

Telephonic Interview

The applicants wish to thank Examiner Schechtman for the courtesy extended in the telephonic interview conducted between him and Wendy Choi, applicants' attorney, on July 9, 2007 to discuss the status of claims 1, 14, and 15.

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 C.F.R. § 1.116

Applicants agreed to further amend claims 1, 14, and 15 to clarify that the user

defines the parts list, thereby more clearly distinguishing the Maeda and Kawai references.

The Examiner and applicants' attorney also discussed the new matter rejection of

claims 1, 2, 4, and 6 to 15 (using claims 1, 14, and 15 as representative claims) with respect

to "assembly structure information." In reviewing the figures and the specification, the

Examiner agreed that the phrase was supported and would withdraw the new matter rejection

of claims 1, 14, and 15 and their dependent claims.

Claim Amendments

Applicants are herein amending claims 1, 3, 14, and 15:

More specifically, applicants are herein amending claims 1, 14, and 15 to clarify that

the user defines the parts list. Support for these amendments may be found, inter alia, on

page 7, lines 11 to 12, page 8, lines 4, and 16 to 18, and page 19, lines 7 to 10.

Applicants are herein amending claims 1, 3, 14, and 15 to correct typographical errors

with respect to "a" in claim 1 and "consisting of" or "consists of" in claims 3, 14, and 15. No

new matter is introduced by the amendment to the claims.

Applicants request the entry of the amendment under 37 C.F.R. § 1.116(b) because

the amendments to the claims either cancel claims, comply with requirements of form

expressly set forth in a previous Office Action, or present the rejected claims in better form

for consideration on appeal.

Page 8 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 C.F.R. § 1.116

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1, 3, 4, and 6 to 15 are newly rejected under 35 U.S.C. § 112, first paragraph,

as allegedly containing new matter. During the telephonic interview, the Examiner and

applicants' attorney discussed the new matter rejection of claims 1, 2, 4, and 6 to 15 (using

claims 1, 14, and 15 as representative claims) with respect to "assembly structure

information." In reviewing the figures and the specification, the Examiner agreed that the

phrase was supported and would withdraw the new matter rejection of claims 1, 14, and 15

and their dependent claims. The Examiner's interview summary indicates that the new

matter rejection has been withdrawn.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 14 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as

allegedly being indefinite. Applicants are herein amending 14, and 15 to correct the

typographical errors with "consisting of" that were the basis of the indefiniteness rejection.

Accordingly, applicants submit that claims 14 and 15, as amended, are definite under 35

U.S.C. § 112, second paragraph, and therefore request withdrawal of the rejection.

Rejections under 35 U.S.C. § 102(b)

EP-A1-1,152,362 ("Maeda")

Claims 1, 14, and 15 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by

EP-A1-1,152,362 ("Maeda"). Applicants traverse the rejection because Maeda fails to

disclose, teach, or suggest, inter alia, a step where a user defines a parts list (disassembly

definition information) from 3-dimensional data (assembly structure information), as more

clearly specified in amended claims 1, 14, and 15.

Page 9 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 C.F.R. § 1.116

More specifically, in the present invention, 3-dimensional information (assembly

structure information of a product) is imported, which is used by a user to define a parts list.

Each parts list has fully corresponding disassembly definition information. For example,

Figure 8F is an example of a parts list, and Figures 8A to C show different displays of

essentially same disassembly definition information that corresponds to Figure 8F. If the

disassembly definition information is changed, then the illustration generated based on the

information is also altered accordingly. This disassembly definition information (part list)

defines the processes of disassembling/assembling and parts that constitute the processes and

their display (illustration) attributes.

Maeda discloses the use of an *existing* parts list and 2-dimensional image data of parts

of a product in different disassembled states for generating a parts catalog (See, for instance,

Paragraph [0250]). For example, Figure 10 show an illustration of parts with reference

numbers and a parts list, however, the illustration itself is not created in Maeda's method,

therefore, the illustration shown in Figure 10 can be searched, but no alteration can be made

to the illustration itself. Whereas in the present claimed invention, illustrations are generated

according to a disassembly algorithm, which is generated based on a part list (disassembly

definition information) defined by a user using 3-dimensional data (assembly structure

information). Therefore, different illustrations can be created for each part or partially

assembled parts. Maeda does not disclose, teach, or suggest such disassembly definition

information or the use of 3-dimentional data to generate these illustrations.

In Maeda, parts have numbers that have been assigned on them; however, neither the

order of their appearance (e.g., top to bottom) nor the reference numbers constitutes any order

in actual assembling or disassembling. "Disassembly definition information" as used in the

pending claims is user-defined processes that define the order of assembling/disassembling,

and each process (node) is a basic unit of process animation, where attributes of each

animation section is defined.

Page 10 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 C.F.R. § 1.116

The main difference between the claimed invention and Maeda is that the claimed

invention provides a user full control for the creating of process trees from assembly

structure data of a given product, which is entirely distinct from the original assembly

structure data. On the other hand, Maeda's process is bound to the original parts list and 2-

dimensional image data of parts of a product in different disassembled states for generating a

parts catalog. The claimed invention is, thus, distinct from and provides advantages over

Maeda because it is not bound to an existing parts list, but it allows users to create the most

appropriate parts list (disassembly definition information) and 3-dimensional data (assembly

structure information).

Since Maeda does not disclose each and every element of the claims either explicitly

or inherently, Maeda does not anticipate claims 1, 14, and 15. Accordingly, applicants

request withdrawal of the rejection under 35 U.S.C. § 102(b) over Maeda.

EP-A2-1,288,868 ("Kawai")

Claims 1, 3, 4, 7 to 10, 14, and 15 are rejected under 35 U.S.C. § 102(b) as allegedly

anticipated by EP-A2-1,288,868 ("Kawai"). Applicants traverse the rejection because Kawai

fails to disclose, teach, or suggest, inter alia, a step where a user defines a parts list

(disassembly definition information) from 3-dimensional data (assembly structure

information).

The method disclosed in Kawai imports assembly structure information, and

illustrations of disassembled parts are generated based on "disassembling condition data."

Kawai does not disclose, teach, or suggest the creation of process trees (disassembly

definition information) in which a user defines the order and direction of

disassembling/assembling among other things. In the present claimed invention, illustrations

are generated according to a disassembly algorithm, which is generated based on a part list

(disassembly definition information) defined by a user using 3-dimensional data (assembly

Page 11 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 C.F.R. § 1.116

structure information). Therefore, different illustrations can be created for each part or

partially assembled parts. Kawai does not disclose, teach, or suggest such disassembly

definition information.

In Kawai, parts have numbers that have been assigned on them; however, neither the

order of their appearance (e.g., top to bottom) nor the reference numbers constitutes any order

in actual assembling or disassembling. "Disassembly definition information" as used in the

pending claims is user-defined processes that define the order of assembling/disassembling,

and each process (node) is a basic unit of process animation, where attributes of each

animation section is defined.

Since Kawai does not disclose each and every element of the claims either explicitly

or inherently, Kawai does not anticipate claims 1, 3, 4, 7 to 10, 14, and 15. Accordingly,

applicants request withdrawal of the rejection under 35 U.S.C. § 102(b) over Kawai.

Rejections under 35 U.S.C. § 103(a)

Kawai in view of US-A-5,619,630 ("Minami")

Claim 6 is rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kawai as

applied to claims 1 to 5, 7 to 10, 14, and 15 in view of US-A-5,619,630 ("Minami").

Applicants traverse the rejection because Minami does not supply the required limitations

missing from Kawai. Thus, even if it were obvious to modify the Kawai method in the

manner urged by the Office (and applicants are not conceding that it would have been

obvious to do so), one would still not have obtained applicants' claimed method. More

specifically, Minami does not supply the creation of process trees (disassembly definition

information) in which a user defines the order and direction of disassembling/assembling

among other things.

Page 12 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 C.F.R. § 1.116

Based on the foregoing reason, the combination does not render claim 6 obvious.

Accordingly, applicants request withdrawal of the rejection of claim 6 under 35 U.S.C. §

103(a) over Kawai in view of Minami.

Kawai in view of JP 2003-006245 ("Aragaki")

Claims 11 and 12 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over

Kawai as applied to claims 1 to 5, 7 to 10, 14, and 15 in view of JP 2003-006245

("Aragaki"). Applicants traverse the rejection because Aragaki does not supply the required

limitations missing from Kawai. Thus, even if it were obvious to modify the Kawai method

in the manner urged by the Office (and applicants are not conceding that it would have been

obvious to do so), one would still not have obtained applicants' claimed method. More

specifically, Aragaki does not supply, inter alia, the creation of process trees (disassembly

definition information) in which a user defines the order and direction of

disassembling/assembling among other things.

Based on the foregoing reason, the combination does not render claims 11 and 12

obvious. Accordingly, applicants request withdrawal of the rejection of claims 11 and 12

under 35 U.S.C. § 103(a) over Kawai in view of Aragaki.

Kawai in view of Katsuma

Claim 13 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kawai in

view of "Automatic Arrangement of Meta-Objects in Assembly Illustrations" ("Katsuma").

Applicants traverse the rejection because Katsuma does not supply the required limitations

missing from Kawai. Thus, even if it were obvious to modify the Kawai method in the

manner urged by the Office (and applicants are not conceding that it would have been

obvious to do so), one would still not have obtained applicants' claimed method. More

specifically, Katsuma does not supply, inter alia, the creation of process trees (disassembly

Page 13 of 14

Application No.: 10/530,219

Office Action Dated: May 14, 2007

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO

37 C.F.R. § 1.116

definition information) in which a user defines the order and direction of

disassembling/assembling among other things.

Based on the foregoing reason, the combination does not render claim 13 obvious.

Accordingly, applicants request withdrawal of the rejection of claim 13 under 35 U.S.C. §

103(a) over Kawai in view of Katsuma.

Conclusions

Applicants request:

(1) entry of the amendments to the claims;

reconsideration and withdrawal of the rejections of the claims; and (2)

(3) allowance of claims 1, 3, 4, and 6 to 15.

If the Examiner is of a contrary view, the Examiner is requested to contact the undersigned

attorney at (404) 459-5642.

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Page 14 of 14